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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/557,758	11/17/2005	Gregory L. Branch	110120.402	1471
31740	7590	05/13/2008	EXAMINER	
THOMAS LOOP			LEE, EDMUND H	
P.O. BOX 21466			ART UNIT	
SEATTLE, WA 98111			PAPER NUMBER	
			1791	
			MAIL DATE	
			DELIVERY MODE	
			05/13/2008	
			PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/557,758

**Applicant(s)**

BRANCH ET AL.

**Examiner**

EDMUND H. LEE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 15-18, 23-25 and 28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-18, 23-25 and 28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. It should be noted that examiner of record has changed from Ex. Kuhns to Edmund Lee.
2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/25/08 has been entered.
3. Claims 15-18, 23-25, and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Step (c) of claim 15 is indefinite because it is unclear whether or not it is related to step (b). If step (c) is performed upon the depressurized, plasticized thermoplastic material, it should be clearly and positively recited as such.

Step (d) of claim 15 is indefinite because it is unclear whether or not it is related to step (c). If step (d) is performed upon the at least partially foamed, depressurized, plasticized thermoplastic material, it should be clearly and positively recited as such.

Correction is required.

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4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 15-19, 24, 25, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumar et al (USPN 5684055) in view of Grancio et al (USPN 4386188), Rubens et al (USPN 4693856), and Johnson et al (USPN 4424287) as set forth in the previous Office action mailed 12/10/07. In regard to foaming at a temperature less than the melt temperature of the thermoplastic material, such is taught by Kumar et al where the PET, which is known to have a melt temperature of above 200C, is foamed at 90C (col 5, lns 5-50).

6. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kumar et al (USPN 5684055) in view of Grancio et al (USPN 4386188), Rubens et al (USPN 4693856), Johnson et al (USPN 4424287), and Kumar (USPN 5223545) as set forth in the previous Office action mailed 12/10/07.

7. Applicant's arguments with respect to claims 15-18, 23-25, and 28 have been considered but are moot in view of the new ground(s) of rejection.

In regard to applicant's argument that none of the references teach the limitations of claim 28, it should be noted that the well-known statement made by Ex. Kuhns in the Office action mailed 10/27/06 was never traversed by the applicant. Thus, the

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statement was accepted as admitted prior art. However, USPN 3937777 has been added to the record but not relied upon to illustrate the well-known idea of tempering foamed thermoplastic material in order to achieve a desired property.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USPN 3937777 teaches the well-known idea of tempering foamed thermoplastic material in order to achieve a desired property.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDMUND H. LEE whose telephone number is 571.272.1204. The examiner can normally be reached on MONDAY-THURSDAY FROM 9AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571.272.1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EDMUND H. LEE  
Primary Examiner  
Art Unit 1791

EHL

/EDMUND H. LEE/  
Primary Examiner, Art Unit 1791